



[3410-38]

DEPARTMENT OF AGRICULTURE

[Docket Number: USDA-2013-0003]

Science-Based Methods for Entity-Scale Quantification of Greenhouse Gas Sources and Sinks from Agriculture and Forestry Practices

AGENCY: Office of the Chief Economist, USDA.

ACTION: Notice of availability for public comment.

SUMMARY:

The U.S. Department of Agriculture (USDA) has prepared a report containing methods for quantifying entity-scale greenhouse gas (GHG) emissions and removals from the agriculture and forestry sectors. The purpose of this notice is to seek input from the public on the proposed methods. This report was prepared in part to meet requirements of Section 2709 of the Food, Conservation and Energy Act of 2008. The report was prepared by 38 technical experts and reviewed by 29 scientific reviewers. USDA anticipates that the methods will be used by landowners and USDA to improve management practices and identify actions to reduce GHG emissions and increase carbon sequestration. The guidelines and methods could also be used by farmers, ranchers, and forest owners to facilitate their participation in voluntary state and regional GHG registries and programs. Notice of the project was announced in the Federal Register in February, 2011 (FR Doc. 2011–3731, p. 9534, Feb 18 2011). Comments received under

this notice will be used to further refine the methods report in preparation for publication as a USDA Technical Bulletin. Comments submitted will help USDA to gauge the appropriateness and completeness of the proposed methods as well as methodological or data concerns that should be considered. A series of questions have been provided in the supplementary information below to aid review.

When submitting responses, please annotate comments using the report section number designations. All information received will be included in the public docket and made available online at <http://www.regulations.gov>, including any personal information provided. Do not include any information that might be considered proprietary or confidential.

DATES: Responses to this notice should be submitted by 11:59 pm Eastern Time on

[INSERT DATE 45 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER].

ADDRESSES: The report is available for download from the project website at www.usda.gov/oc/climate_change/estimation.htm, and within the Federal Docket as noted below. If you are unable to access the report from one of these web sites, contact the Climate Change Program Office via the contact details below.

Responses to this notice must be submitted electronically through the [regulations.gov](http://www.regulations.gov) portal at <http://www.regulations.gov>, Docket #USDA-2013-0003. Follow the online instructions for submitting comments. [Http://www.regulations.gov](http://www.regulations.gov) is an “anonymous access” system, which means USDA will not know your identity or contact information unless you provide it in the body of your comment. **If you are unable to submit your responses through the web portal**, consider these alternative submission methods:

- via e-mail to techguide@oce.usda.gov;
- via fax to 202-401-1176; or,
- via courier delivery to Marlen Eve, USDA Climate Change Program Office, 1400 Independence Ave SW, Room 4407 South Bldg, Washington, DC 20250.

Responses submitted through e-mail, fax or courier will be recorded in full, including any identity and contact information.

FOR FURTHER INFORMATION: Any questions about the content of this notice should be sent to Marlen Eve, USDA Climate Change Program Office, via E-mail techguide@oce.usda.gov, Telephone 202-401-0979, or Fax 202-401-1176. Additional information on the project can be found at www.usda.gov/oce/climate_change/estimation.htm.

SUPPLEMENTARY INFORMATION: The Climate Change Program Office (CCPO) operates within the Office of the Chief Economist at USDA and functions as the Department-wide focal point on agriculture, rural, and forestry-related climate change activities. The CCPO ensures that USDA is a source of objective, analytical assessments of the effects of climate change and proposed response strategies. This project addresses the need for scientifically-sound, Department-wide guidelines for quantifying GHG emissions and carbon sequestration at the farm-, forest- and entity-scale. The report and other products developed by this project will be useful in assessing the carbon and GHG related environmental service benefits of various agricultural and forestry management practices and technologies. Supplementary information on the project is included below.

Project scope. USDA has created a comprehensive set of GHG inventory methods that builds upon existing estimation and inventory efforts with the aim of providing transparent and robust inventory guidelines and reporting tools. The methods address direct greenhouse gas emissions and carbon sequestration from agriculture and forest management at the farm, ranch or forest boundary. This report does not establish a GHG crediting framework or address policy issues related to crediting GHG reductions such as additionality or leakage.

The following GHG sources and sinks are addressed in the report:

Croplands/Grazing Lands

- Biomass carbon stock changes;
- Soil organic carbon stocks for mineral soils;
- Soil organic carbon stocks for organic soils;
- Direct nitrous oxide emissions from mineral soils;
- Direct nitrous oxide emissions from drainage of organic soils;
- Indirect nitrous oxide emissions;
- Methane uptake by soils;
- Methane and nitrous oxide emissions from rice cultivation;
- Carbon dioxide emissions from liming;
- Methane and nitrous oxide emissions from biomass burning; and
- Carbon dioxide emissions from urea fertilizer application.

Managed Wetlands

- Biomass carbon stock changes;

- Soil carbon stock changes; and
- Methane and nitrous oxide emissions.

Animal Production Systems

- Enteric fermentation and animal housing emissions;
- Solid manure storage and treatment emissions;
- Liquid manure storage and treatment emissions; and
- Manure application emissions.

Forestry

- Forest carbon stock changes;
- Establishing, re-establishing, and clearing forests;
- Forest management;
- Harvested wood products;
- Urban forestry; and
- Natural disturbances.

Land Use Change

- Dead wood carbon;
- Carbon in litter ; and
- Soil organic carbon in mineral soils.

Methods have not been delineated for all of the sources considered. In some cases, the authors note that more research, additional data and/or extrapolation of current

information are needed in order to establish a method. These research and data gaps are highlighted in the report. An approach to uncertainty assessment is also proposed.

Specifically, USDA requests comments on:

1. Are sources of GHG emissions or sinks missing? Are the methods provided complete? Are there potential inconsistencies in and across the methods?
2. Are the proposed methods suitable for estimating GHG emissions at the farm-, forest or entity-scale while meeting the selection criteria of transparency, consistency, comparability, completeness, accuracy, cost effectiveness, and ease of use?
3. Are new (or additional) data sources available for calculating emission factors?
4. Are there additional management practices for which the science and data are clear, and which should be addressed in the methods report? If yes, please provide details.
5. Are the methods appropriate across a variety of farm and forest entities as well as applicable to operations of any size?
6. Are the research gaps clearly identified? Are there additional gaps to note, or new data sources that significantly address any of the listed gaps?

Persons with disabilities who require alternate means for communication of program information (Braille, large print, audio tape, etc.) should contact the USDA's Target Center at (202) 720-2600 (voice and TDD).

Joseph Glauber
Chief Economist

August 20, 2013
Date

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